Institutional Reforms in Providing Rewards for Environmental Services: Lessons from Three RUPES Sites in Sumatra, Indonesia

Bustanul Arifin

Associate Professor, Department of Agricultural Economics and Social Sciences
University of Lampung (UNILA), Sumatra-Indonesia, e-mail: barifin@uwalumni.com

Introduction

The development of environmental services market increasingly obtains attention in academic communities, government agencies, private sectors and organizations concerned with the empowerment of civil society. However, as the institutions governing the interactions among these stakeholders have not develop properly, establishing rewards and payment transfers for providers or sellers of the services -- which are mostly group of poor people very dependent on environmental resources -- face serious complexities. Under such institutional arrangements, potential opportunity costs, hence the transaction costs, to implement the rewards and to execute the payment transfers extremely high. In additions, political constraints to smoothly implement the concepts are also high, especially once the communities receive rewards for services provided only in exchange for support for political votes.

This study examines institutional reforms in providing rewards for environmental services, drawn from three different sites of RUPES (Rewarding Upland Poor for Environmental Services They Provide) in Indonesia. These are watershed services in Sumber Jaya of Lampung, biodiversity services in Bungo of Jambi and carbon sequestration services using an entry point of watershed and hydrologic functions in Singkarak of West Sumatra.

Approach and Frameworks

The approach and frameworks to formulate institutional reforms in this study rest on the meaning and scope of institutions as a set of rules of going concerns, focusing on the typology of institutions, including the notions to which available institutions (norms or conventions, working rules, and property relations) governs the arrangements to accommodate collective actions in control, liberation and expansion of individual action. Norms and conventions accepted regularities in behavior, though not written, that bring order and predictability to human relationship. Norms and conventions must be distinguished from class of institutions for which there exist formal (codified) enforcement mechanisms. Compliance processes must be set up by the state to enforce conformance with an evolved norm, that is, the working rules.

The study also adopts the concept of bonding and bridging social capital. Bonding refers to network access and forms of participation where people could have a higher trust among family members, neighbors, friends, alumni associations, groups, colleagues etc., while bridging refers to attempts to build trusts and networks from different groups or members of society. This implies that strong bonding social capital without bridging social capital could lead to sustained conflicts. Once these social capitals are combined, the level of trusts could grow significantly higher and
the civil society as a whole would grow healthier and even stronger than otherwise. The
collective actions relevant to the development of environmental services market would go beyond
“autonomous” process to accumulate trusts within the group, but rather it requires systematic
efforts for recognition among different groups (and subgroups), and mechanisms to build long-
term relations and networking systems in a broader context for more sustainable resource
management. Therefore, intermediaries are really needed to develop negotiation support system
that could strengthen the “bridge” and accumulate “trusts” in the society.

The concept of social capital could be very relevant in developing environmental services
markets, and formulating the payment mechanism from the buyers, intermediaries and sellers of
the services. However, from the results of empirical studies of environmental services markets,
at least four prior conditions need to be fulfilled before a payments mechanism can be
established: (1) The governance system must be responsive to the long-term interests and
perspectives of the local people, and not lean towards the outside extractor/investor option; (2)
The relevance of environmental services to the livelihood of the local people must be articulated
alongside with health and education systems that are provided as “public services;” (3) World
markets need to link the environmental services consequences for outside stakeholders to price
signals that local actors perceive, and at a level that is significant in relation to the direct sale
value of the products; and (4) Basic levels of trust are needed between local people, governance
systems and external stakeholders. Without such trust, payment of environmental service
transactions is unlikely to be sustainable, transparent and effective.

The studies were conducted using a combination of desk studies and field observations to all
three RUPES sites, applying a purposive participatory rural appraisal to collect new information
in the sites and to verify some information on the institutional mechanisms already available. An
in-depth analysis is also employed based on head-to-head interview with prominent figures of
informants and competent resource persons to examine further what appears to work where and
under what conditions, as well as what we learn from what does not seem to work.

Findings and Interpretations

Based on classes of institutions, societies in Sumber Jaya (Lampung) have adopted the norms and
conventions based on the (economic) values of migrant, frontier and forest-pioneer character.
Institutions supporting biodiversity services in Bungo (Jambi) were developed based on the
norms and conventions that a right to use the land is generally attainable through forest frontiers,
initial planting of cash crops such as rubber and cinnamon. A revival of sophisticated nagari
system in Singkarak (West Sumatra) significantly redefines the land-use, where the right to use
land is governed through locally defined conventions within Kerapatan Nagari, a decision-
making institutions being preserved since pre-independence. Some existing supportive
institutional environments that expectedly are able to govern and regulate groups of associated
agents and enable collective control over transaction and guarantee the consensus for action and
evaluation required for joint action. Existing societal-based collective actions in RUPES sites
such as gotong royong (labor share), arisan (capital share), berselang (labor allocation) etc. and
formal enforcement structures of the community-based forestry (such as in HKM) could be seen
as a foundation to establish stronger bonding and bridging social capital and very prospective to
develop environmental service market in Indonesia.

1. Level of dynamics of norms and conventions

The level of norms and conventions adopted by the society living around the watershed is very
much determined by the characteristics and historical figures of the community. For example, the
migrant character of community in Sumber Jaya leads to a majority feeling (62%) that everybody
can have access to grow crops in forest land. This figure is different from the perception of the
people living in Lake Singkarak watershed, who believe that the land—including forest land—is
controlled by the traditional *ulayat* system, from *kaums* to *nagaris*. Only 5% of respondents in Singkarak believe that individuals could have access to forestlands to grow crops. According to information from key informants, the figures in Bungo fall between those found in Sumber Jaya and in Singkarak. In this case, the role of farmers’ groups as a significant agent in growing crops in forestlands is not as important as their function to improve social cohesiveness in the community.

The majority of respondents in Sumber Jaya (78%) are members of local organizations such as farmers’ groups (more precisely CBFM of HKM group). In Singkarak, 72% of respondents do not belong to any local organizations. These seemingly contradictory findings could be explained by the fact that growing crops in the forest is not accepted by the government, even though the local authority is no longer adopting repressive measures. People want “more freedom” in growing cash crops such as multistrata coffee and tree crops in the protection forests, assuming more sustainability principles are adopted in these farming practices. In this case, the main reason farmers in Sumber Jaya join these organizations is to obtain more secure property rights in land use practices, particularly in response to the recent rules and regulations about HKM and/or policies of social forestry in general. Regarding the understanding of rights, benefits, and responsibility in joining the farmers’ association, the majority of respondents in all RUPES study sites were confident about their decision to join at least one local association or farmers’ organization.

2. Respected and enforceable working rules

Unlike the findings of institutional mechanisms of norms and conventions, people in the three RUPES locations have a similar tendency to respect more formal working rules related to sustainable resource management. The relationship between individuals and farmers’ group with local government officers is perceived to be “good” by 65% of respondents in Singkarak, by 31% of respondents in Sumber Jaya, and possibly by most of people in Bungo. The majority of respondents in Sumber Jaya (61%) chose the answer of “fair,” instead of “good” such as in Singkarak. This is probably due to cultural differences. Respondents in Sumber Jaya are mostly migrants from Java (80%), whereas all respondents in Singkarak are native Sumatrans (*Minang* ethnic group).

Similar results are also found regarding the impression of the local government’s performance. The majority of respondents in Sumber Jaya (60%) claim that their performance is “fair,” while those in Singkarak (92%) say the performance is “good.” However, more than 34% of respondents in Singkarak suggest a “bad” performance of local agency dealt with forestry, and only 17% of respondents in Sumber Jaya were confident enough to say that the performance of forestry officials is “bad.” The problems of illegal logging and the fact that these people have witnessed a significant amount of illegal timber being transported outside the area, are among the factors contributing to the “bad” impression. One should note that this finding could be verified with the actual outcome of natural resources quality in the study sites, which might determine the level of respect for formal working rules relevant to environmental services development in Indonesia.

3. Estimated transaction costs of co-management

The components of transaction costs that could be estimated include: (1) costs of initiation/information searching, ranging from the costs of group establishment, lobbying costs, obtaining permits, etc.; (2) costs of coordination/organization, consisting of the costs of overhead, regular meetings, and opportunity foregone to attend meetings, etc.; and (3) costs of enforcement, including the costs of guarding the crops from encroachers, “parcel maintenance,” dispute settlement, etc. It should be noted that the range of these costs components varies significantly, implying different perspectives among respondents in Sumber Jaya.
The estimated transaction costs of Rp 504 thousand per household (about US$ 55) is considered expensive, especially when the average annual income of farm households in the sites is about Rp 1 million or less. This also implies a non-efficient economic organization or institutional arrangements of the society in the sites. The component consists of costs of initiation or searching information (70%), costs of coordination or organizing the group (27%), and cost of monitoring or enforcement on the existence of the group (3%). As the institutions change, but external factors move towards more complex structures of relations, the dynamics of transaction costs could change accordingly. Therefore, roles of intermediaries such as NGO (national and international) are extremely important to reduce transaction costs, especially to ensure ordered relations and conflict resolutions, to improve trusts, shared responsibility and lifescape co-management to achieve sustainable resource management.

Steps for Institutional Reforms
Elements for institutional reforms to formulate rewards for the poors should focus on: (1) clear, transparent, and integrated social forestry development, (2) participatory conservation of biological diversity, (3) public-private partnership for water-resource management to implement catchments rehabilitation for clean development mechanism. The immediate challenge is how the interests and commitments shown by local stakeholders to rehabilitate the forest resources to empower poor people locally dependent on natural resources could be effectively utilized to improve their livelihoods and enhance environmental services to make a better future.

Finally, the strategy to implement reward transfers to the poor or simply payment mechanisms should be initiated with public-private partnerships in each of the three RUPES sites. A regular coordination meeting among stakeholders concerned with specific services should be held regularly. A community forum on natural resource management could serve as a facilitator and arena in the policy exercise directly and indirectly related to RUPES development at the national level and site levels. The main agenda of this public-private partnership would be to establish criteria on how to implement the reward mechanism system. The partnership could serve as a steering committee and act as a bridge between local stakeholders, and provincial and central government for the reward transfer for environmental services.